2. (amended) A conversion layer according to claim 1, wherein said conversion layer has across the conversion layer thickness a chromium content greater than about 1 %, in relation to zinc and chromium in the conversion layer and an average chromium content of more than about 5%; said conversion layer further having a chromium-rich zone with greater than about 20% chromium, in relation to zinc and chromium in the conversion layer, said chromium rich zone having a thickness of more than about 15 nm.

3. (twice amended) A conversion layer according to claim 1, further comprising additional components selected from the group consisting of: silicate, cerium, aluminum and borate; additional metal compounds; anions; polymers; corrosion inhibitors; silicic acids; surfactants; diols; triols; polyols; organic acids; amines; plastics dispersions; dyes; pigments; chromogenic agents; amino acids; siccatives; dispersing agents; and mixtures thereof.

4. (twice amended) A conversion layer according to claim 1, said conversion layer being a basis for further inorganic and/or organic layers.

5. (twice amended) A conversion layer according to claim 1, further comprising a dye or color pigment for modification of the color thereof.

6. (twice amended) A conversion layer according to claim 1, having a thickness of about 100 nm.

7. (amended) A method for producing a chromium(VI)-free conversion layer affording at least the corrosion protection of conventional chromium(VI)-containing yellow chromations, wherein a metallic surface is treated with a solution of at least one chromium(III) complex and at least one salt; said method being further characterized in that the concentration of the chromium(III) complex is increased in comparison with a conventional trivalent blue chromation; and/or a chromium(III) complex is used having ligand replacement kinetics more rapid than the fluoride replacement kinetics in chromium(III)-fluorocomplexes; said chromium(III) complex being present in a concentration of 5 to 100 g/l, said method producing a chromium(VI)-free conversion layer affording at least the corrosion protection of conventional chromium(VI)-containing yellow chromations.

8. (amended) A method according to claim 7, wherein treatment is carried out at 20 to 100°C.

9. (twice amended) A method according to claim 7, wherein ligands of the chromium(III) complex are selected from the group consisting of: chelate ligands, and complex ligands having a complexing functional group containing nitrogen, phosphorus or sulfur.

10. (amended) A concentrate for producing a passivation solution for surfaces of zinc or zinc alloys, , said concentrate substantially containing chromium(III) for a passivating component, wherein the chromium(III) is present in the form of at least one complex having ligand replacement kinetics more rapid than the fluoride replacement kinetics in chromium(III) fluorocomplexes, said concentrate being chromium(VI)-free.

11. (amended) A concentrate according to claim 10, wherein the chromium(III) complex is selected from complexes with chromium(III) and at least one ligand selected from the group consisting of: chelate ligands, complex ligands wherein the complexing functional group contains nitrogen, phosphorus or sulfur, phosphinates and phosphinate derivatives, and mixtures thereof, among each other as well as in mixed complexes with inorganic anions and H_2O, said chelate ligands being selected from the group consisting of dicarboxylic acids, tricarboxylic acids, hydroxycarboxylic acids, acetylacetone, urea, urea derivatives, and mixtures thereof.

13. (twice amended) A concentrate according to claim 10, said concentrate comprising further additives selected from the group consisting of: sealers, dewatering fluids, additional metal compounds, anions, polymers, corrosion inhibitors, silicic acids, surfactants, diols, triols, polyols, organic acids, amines, plastics dispersions, dyes, pigments, chromogenic agents, amino acids, siccatives, dispersing agents, and mixtures thereof.

14. (amended) A passivation bath for passivating a metal surface of zinc, cadmium, aluminum, or alloys thereof among each other and/or with other metals, said bath comprising chromium(III) as a passivating component, wherein chromium(III) is present in a concentration of about 5 to 100 g/l, said bath being effective, upon immersing said metal

surface therein, to provide a conversion layer on said metal surface which presents a corrosion protection of about 100 to 1000 h in the salt spray test according to DIN 50021 SS or ASTM B 117-73 until first attack according to DIN 50961 Chapter 10, said passivation bath being chromium(VI)-free.

B7 cont.

15. (amended) A passivation bath according to claim 14, wherein chromium(III) is present in a concentration of about 5 g/l to 80 g/l.

16. (twice amended) A passivation bath according to claim 14, wherein said bath has a pH between about 1.5 and 3.

B8

17. (twice amended) A passivation bath according to claim 14, wherein said bath contains about 20 g/l chromium(III) and has a pH of about 2 to 2.5.

18. (twice amended) A passivation bath according to claim 14, wherein said bath contains further additives selected from the group consisting of sealers, dewatering fluids additional metal compounds anions, polymers, corrosion inhibitors, silicic acids, surfactants, diols, triols, polyols, organic acids, amines, plastics dispersions, dyes, pigments, chromogenic agents, amino acids, siccatives, dispersing agents, and mixtures thereof.

19. (twice amended) A passivation bath according to claim 14, said bath having a bath temperature of about 20 to 100°C.

20. (twice amended) A method for passivating surfaces of zinc or zinc alloys, comprising the steps of immersing said surface, for an immersion period, in a passivation bath comprising chromium(III) as a passivating component, wherein chromium(III) is present in a concentration of about 5 to 100 g/l, and thereby providing a conversion layer on said surface which presents a corrosion protection of about 100 to 1000 h in the salt spray test according to DIN 50021 SS or ASTM B 117-73 until first attack according to DIN 50961 Chapter 10, wherein both said passivation bath and said conversion layer provided on said surface are chromium(VI)-free.

B9

21. (amended) A method according to claim 20, wherein the immersion period is between about 15 and 200 seconds.

22. (twice amended) A method according to claim 20, said method being an elevated-temperature chromate coating method with rinsing water recycling over at least 2 cascaded rinsing stages.

24. (twice amended) A conversion layer obtained by a method comprising ~~the steps of~~ immersing a metal surface of zinc or zinc alloy, ~~for~~ an immersion period, in a passivation bath comprising chromium(III) as a passivating component, wherein chromium(III) is present in a concentration of about 5 to 100 g/l, and thereby providing said conversion layer on said metal surface, said conversion layer and said passivation bath each being chromium(VI)-free.

25. (amended) A conversion layer according to claim 24, said conversion layer providing corrosion protection of at least 100 hours in the salt spray test according to DIN 50021 SS until first attack according to DIN 50961 Chapter 10.

26. (twice amended) A conversion layer according to claim 24, said layer presenting a greenish, red-green iridescent color for zinc.

27. (twice amended) A conversion layer according to claim 24, said layer having a layer thickness of about 100 nm.

28. (twice amended) A conversion layer obtained by a method comprising treating a metallic surface of zinc or zinc alloys with a solution of at least one chromium(III) complex and at least one salt, wherein the concentration of the chromium(III) complex in said solution is increased in comparison with a conventional trivalent blue chromation, and/or a chromium(III) complex is used having ligand replacement kinetics more rapid than the fluoride replacement kinetics in chromium(III)-fluorocomplexes, said solution being chromium(VI)-free.

Please add new claims 37 to 61.

37. (new) A conversion layer according to claim 2, having a chromium index greater than 10.

38. (new) A conversion layer according to claim 3, wherein said anions include an anion selected from the group consisting of halide ions, sulfurous ions, nitrate ions, phosphoric ions, diphosphate ions, linear and/or cyclic oligophosphate ions, linear and/or cyclic polyphosphate ions, hydrogen phosphate ions, carboxylic acid anions, and silicon-containing anions.

39. (new) A conversion layer according to claim 3, wherein said additional metal compounds include at least one 1- to 6-valent metal compound selected from the group consisting of compounds of Na, Ag, AI, Co, Ni, Fe, Ga, In, lanthanides, Zr; Sc, Ti, V, Cr, Mn, Cu, Zn, Y, Nb, Mo, Hf, Ta, W.

40 (new) A method according to claim 7, said metal surface being zinc or a zinc alloy.

41. (new) A method according to claim 9, said chelate ligands being selected from the group consisting of dicarboxylic acids, tricarboxylic acids, hydroxycarboxylic acids, maleic acid, phthalic acid, terephthalic acid, tartaric acid, citric acid, malic acid, ascorbic acid, acetylacetone, urea, urea derivatives, and mixtures thereof.

42. (new) A method according to claim 9, said complex ligands being selected from the group consisting of -NR2, -PR2, and -SR compounds, wherein R is H or an organic radical, phosphinates, phosphinate derivatives, and mixtures thereof.

43. (new) A passivation bath according to claim 15, wherein said chromium (III) is present in a concentration of about 10 g/l to 30 g/l.

44. (new) A passivation bath according to claim 18, wherein said additional metal compounds are selected from the group consisting of 1- to 6-vaient metal compounds of Na, Ag, Al, Co, Ni, Fe, Ga, In, lanthanides, Zr, Sc, Ti, V, Cr, Mn, Cu, Zn, Y, Nb, Mo, Hf, Ta, and W;

said anions being selected from the group consisting of halide ions, sulfurous ions, nitrate ions, phosphoric ions, diphosphate ions, linear and cyclic oligophosphate ions, linear and cyclic polyphosphate ions, hydrogen phosphate ions, carboxylic acid anions, and silicon-containing anions;

said silicic acids being colloidal or disperse silicic acids;

said chromogenic agents including metallic chromogenic agents.

45. (new) A passivation bath according to claim 18, said amino acids including glycin.

46. (new) A passivation bath according to claim 21, said immersion period being between about 15 and 100 seconds.

47. (new) A conversion layer according to claim 1, said conversion layer having a thickness of 100-1000 nm.

48. (new) A conversion layer according to claim 1, said conversion layer being transparent.

49. (new) A conversion layer according to claim 1, said conversion layer being iridescent.

50. (new) A conversion layer according to claim 1, said conversion layer having a chromium-rich zone comprising greater than about 20% chromium based on zinc and chromium in said chromium-rich zone.

51. (new) A conversion layer according to claim 50, said chromium-rich zone having a thickness of at least 15 nm.

52. (new) A method according to claim 8, wherein said treatment is carried out at 30-60°C.

53. (new) A method according to claim 9, wherein said chelate ligands are selected from the group consisting of dicarboxylic acids, tricarboxylic acids and hydroxycarboxylic acids.

54. (new) A method according to claim 9, wherein said chelate ligands are selected from the group consisting of oxalic acid, malonic acid, succinic acid, glutaric acid, adipic acid, pimelic acid, suberic acid, azelaic acid, sebacic acid, maleic acid, phthalic acid, terephthalic acid, tartaric acid, citric acid, malic acid, and ascorbic acid.

55. (new) A passivation bath according to claim 18, said additional metal compounds being selected from the group consisting of 1- to 6-valent metal compounds of Na, Ag, Al, Co, Ni, Fe, Ga, In, lanthanides, Zr; Sc, Ti, V, Cr, Mn, Cu, Zn, Y, Nb, Mo, Hf, Ta, and W.

56. (new) A passivation bath according to claim 18, said anions being selected from the group consisting of halide ions, sulfurous ions, nitrate ions, phosphoric ions, carboxylic acid anions; and silicon-containing anions.

57. (new) A conversion layer according to claim 1, said conversion layer being clear, transparent and essentially colorless, said conversion layer presenting a multi-colored iridescence.

58. (new) A conversion layer according to claim 1, said conversion layer having a thickness of about 100 nm to 1000 nm.

B14 Cont

59. (new) A concentrate according to claim 11, said complexing functional group of said complex ligands being -NR2, -R2, or –SR, wherein R independently is an aliphatic radical or H.

60. (new) A concentrate according to claim 13, said metal compounds being selected from the group consisting of 1-to 6-valent metal compounds of Na, Ag, AI, Co, Ni, Fe, Ga, In, lanthanides, Zr; Sc, Ti, V, Cr, Mn, Cu, Zn, Y, Nb, Mo, Hf, Ta, and W; said anions being selected from the grou consisting of halide ions, sulfurous ions, nitrate ions, phosphoric ions, carboxylic acid anions, and silicon-containing anions; said polymers being selected from the group consisting of organic polymers.

61. (new) A concentrate according to claim 13, said silicic acids being colloidal or disperse silicic acids, said organic acids being monocarboxylic acids, said chromogenic agents being metallic chromogenic agents, said amino acid being glycin, said siccatives being cobalt siccatives.